12.

Notes on the Taxonomy of the Birds of the Philippines.

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During an examination of the birds of the Philippines in connection with the preparation of a handbook of the avifauna of that area, the authors were frequently forced to revise the currently adopted classification and nomenclature. Since it would seem unfortunate to include in a popular handbook the reasons for these taxonomic changes, they are published separately in the present paper. The reasons for deviations from the nomenclature of the two standard works on the birds of the Philippines[1] are discussed only if they have not already been stated previously in papers recently published by ourselves or other authors. Since none of the new generic names proposed by Marquess Hachisuka is valid in our opinion, we are not discussing them in the present notes. Full quotations of the original descriptions of all well established names are given by McGregor and Hachisuka, as well as by standard works (Sharpe, Peters). It would have been pedantic and wasteful to repeat them in the present paper. References to the recent literature are given in full.

We are deeply obliged to the curators of the United States National Museum, Museum of Comparative Zoölogy, Chicago Museum of Natural History, Philadelphia Academy of Natural Sciences, Museum of the University of Michigan and the Museum of the University of Minnesota for the loan of much valuable material for comparison.

Each of the two authors has prepared the accounts on about half of the families of the "Birds of the Philippines" (in press). The following discussions of the taxonomy of Philippine birds were also prepared independently by each author, as indicated by the initials in square brackets, but each author is in full accord with the conclusions reached by his collaborator.

Pelicans (Family Pelecanidae). [J. D.]

Pelecanus roseus roseus—Replaces *philippensis* auctorum (Chasen, A Handlist of Malaysian Birds, 1935, p. 69). Trinomials are used as *P. crispus* is evidently a subspecies of *roseus*, larger and lighter in color, but very similar in all characteristics. Its breeding range is north of that of *roseus*.

Storks (Family Ciconiidae). [J. D.]

Ciconia episcopus—The genus *Dissoura*, created for this species, is not acceptable. The alleged characteristics, woolly feathers on face and neck, forked tail and under tail-coverts very long, stiff and bifurcated, denudation of the forehead and lores, fall entirely within normal specific variation for the genus *Ciconia; C. episcopus* is rather closer to *C. nigra* than the latter is to *C. ciconia*. We also consider *Abdimia* and *Euxenura* synonyms of *Ciconia*.

Herons (Family Ardeidae). [J. D.]

We cannot accept the genus *Demigretta*, which is based on the more extended feathering of the tibia, the different length and texture of the feathers of the trains, the shortness of the tarsus and the presence of a dark gray color phase. The latter exists in the Madagascan and African subspecies of *Egretta garzetta*.

Ducks (Family Anatidae). [J. D.]

Our nomenclature is that proposed in our recent revision of the Family Anatidae (1945, *Wilson Bulletin*, vol. 57, pp. 1-55).

Hawks (Family Accipitridae). [E. M.]

Aviceda jerdoni—Peters (1931, Check-List of the Birds of the World, vol. 1, p. 196) recognizes two races of this species in the Philippines, following the lead of earlier authors (Sharpe, McGregor, etc.). Actually all the specimens in collections identified as *magnirostris* (type locality Luzon) are in adult plumage, all *leucopais* (type locality Palawan) are in immature plumage. It is inevitable that *leucopais* (1888) must be considered a synonym of *magnirostris* (1847), until valid distinctions between birds from the various islands have been pointed out.

Pernis—The thorough confusion in the literature between the winter visitor *Pernis*

[1] McGregor, Richard C. A Manual of Philippine Birds, Manila, 1909-1911.
Hachisuka, Marquess. The Birds of the Philippine Islands, London, 1931-1935.

ptilorhynchus orientalis and the two species that are residents in the Philippines, *P. ptilorhynchus philippensis* and *P. celebensis steerei*, makes it impossible at the present time to outline the ranges correctly. For the distinguishing characters of the three forms see E. Stresemann, 1941, *Arch. Naturg.* (N.F.), vol. 9, p. 168.

Accipiter trivirgatus extimus Mayr, new subspecies.

Type — No. 533337, American Museum Natural History, (Rothschild Collection), ♂ ad., Davao, Mindanao, Philippine Islands, C. Platen Collection.

Adult Male — Similar to *trivirgatus* (Malay Archipelago), but much lighter underneath. Entire lower throat pale tawny rufous, broad cross bars of breast and flanks of the same color, not mixed with brownish or black, bars on thighs less blackish. *Adult Female* — Rufous underneath, not blackish brown as in *trivirgatus*.

Wing ♂ ad. 182, 187, 188, 188, 188; ♀ ad. 208; tail, ♂ ad. 140, 141, 145, 148, 150; ♀ ad. 167. In a series of *trivirgatus* these measurements are: wing ♂ ad. 180, 188, 193, 198, 200; ♀ ad. 207, 209, 209, 210, 216, 217, 218, 227, 230; ♀ imm. 203, 207, 209, 212; tail, ♂ ad. 139, 145, 146, 151, 155, ♀ ad. 153, 154, 157, 159, 163, 163, 165, 178, 180. There is, thus, no conspicuous size difference between Malaysian and Philippine birds.

Range—Negros, Samar, Leyte, Mindanao.

I have not seen any immatures from the Philippines. A single immature female from Palawan is unmarked on the underside except for a few streaks on the sides of the throat and some obsolete vermiculation on the thighs. The black feather centers on crown and nape are narrow. Upper and underparts are strongly washed with tawny ocher. Adults from Palawan and immatures from the Philippines must be examined before the status of the Palawan population can be determined.

Circus aeruginosus spilonotus — Typical *aeruginosus* do not occur in eastern Asia and the Philippines, as pointed out correctly by Steinbacher (in Hartert, Vögel pal. Fauna, Erg. bd., 1936, p. 414). All the records in the literature, as for example in McGregor, are due to confusion with *spilonotus*. The two forms intergrade in central Asia, according to Stegmann, and must be considered conspecific.

Spilornis — The differences between the Philippine form *holospilus* (white spots on nape, no bars on throat) do not seem striking enough to justify specific separation from *cheela* (see also Peters, 1939, *Bull. Mus. Comp. Zool.*, vol. 86, p. 76-77).

Megapodes (Family Megapodiidae). [E. M.]

Megapodius freycinet pusillus—In 1931, Hachisuka described a new subspecies, *tabon*, from Mindanao, as being larger than *pusillus* and of slightly different coloration. These differences cannot be confirmed with our material. A series from Mindanao measures 220, 231, 249, 250, 252, thus overlapping widely with *pusillus* (wing length recorded as 230-245).

Pheasants and Quails (Family Phasianidae). [J.D.]

Coturnix chinensis—We fail to find any plausible reason for the retention of the genus *Excalfactoria*. Its very small size, fewer tail-feathers, and a slightly greater degree of sexual dimorphism are insufficient for generic distinction from other species of *Coturnix*. *C. delagorguei* shows a fairly similar pattern in both sexes, and in turn is closely related to *C. coromandelianus*. The African *adansoni* is but a subspecies of *chinensis*. *Synoicus* is another synonym of *Coturnix* (Mayr, 1944, *Bull. Amer. Mus. Nat. Hist.*, 83, p. 145).

Button Quails (Family Turnicidae). [E. M.]

Turnix sylvatica — The validity of the various races described from the Philippines is uncertain. We have seen material of *whiteheadi* only. *Turnix worcesteri* is so similar to *whiteheadi*, according to its description, that it cannot be anything but a subspecies of *sylvatica*.

Plovers (Subfamily Charadriinae). [E. M.]

Pluvialis—The slight difference between the Black-bellied Plover and the Golden Plover, namely the presence of a rudimentary hind-toe in the former species, is not sufficient to justify the recognition of the monotypic genus *Squatarola*. It would be poor systematics to split this natural group of plovers into two monotypic genera (the two species of Golden Plovers form one superspecies). Genera that are based on the loss of a morphological character are rarely valid.

Stint Sandpipers (Subfamily Calidriinae). [E. M.]

Crocethia—The recognition of a separate genus for the Sanderling, based on the absence of the rudimentary hind-toe, is as unjustified as that of *Squatarola*. The Sanderling agrees in every detail of its behavior, color pattern and morphology with the other small stint sandpipers. Hartert established the large collective genus *Calidris* for most of the stint sandpipers as an alternative to the recognition of many monotypic or oligotypic genera. It can be determined only by a thorough revision of the entire group whether this action was justified. The knots at least appear to be rather different from the smaller stint sandpipers. On the other hand, we fail to see any reason for upholding a separate genus for the Semipalmated and Western Sandpipers. The presence of webs between the

toes is not even necessarily a species character (e.g. *Charadrius hiaticula semipalmatus* and *Tringa totanus*). Since *Ereunetes* (1811) has five years' priority over *Erolia* (1816), it would have to be accepted as the generic name for the small stint sandpipers, in case the knots are kept in a separate genus (*Calidris*).

Ereunetes ferrugineus—This is the correct name for the Curlew Sandpiper, as shown by Stresemann (1941, Ornith. Monatsber., vol. 49, p. 21).

Pigeons (Family Columbidae). [J. D.]

We cannot draw a line anywhere in the large group of the green fruit doves, and consider therefore *Leucotreron* a synonym of *Ptilinopus*. The genus *Neoleucotreron* proposed for *marchei* and *merrilli* because of the presence of disintegrated barbs in the secondaries has already been rejected by Peters with good reason. Small differences in the attenuation of the first primary and in the feathering of the tarsus, throughout the group, do not warrant generic distinction.

Ducula aenea—Birds from central northern Luzon (north of 16° Long. N.) have a strongly marked coppery chestnut patch on the nape and are recognized as *D. ae. nuchalis* (Cabanis) with the type locality fixed at Isabella Province. A larger race, *D. ae. fugaensis* Hachisuka, with a variable amount of chestnut on the nape, occupies the northern group of islands (Babuyan and Batan). Birds from the rest of the Philippines have no or very little chestnut tinge on the nape and are referred to *D. ae. chalybura* Bonaparte, type locality fixed at Albay District, S. Luzon. Contrary to previous assertions, birds from the Sulu Islands are similar to those of Mindanao, etc. . . , and not to the Bornean population, as they have the pale gray neck sharply separated from the green mantle on a neat line. There still is a great deal of uncertainty about the geographical variation of this species in the Philippines. *D. ae. nuchalis* and *chalybura* certainly overlap and mix in some districts, since Whitehead found both forms at Cape Engano. Birds from eastern and southern Luzon seem to have pure gray napes with a few exceptions, but further south specimens with a slight reddish tinge are not rare. Manuel (*Phil. Journ. Sci.*, 60. Aug. 4, 1936, pp. 409-412) has dismissed Hachisuka's statement that the chestnut nuchal patch is a seasonal feature and has shown that the great majority of chestnut naped birds occur north of 16° Long. N. He also separates as *D. ae. glaucocauda* the Mindanao-Samar-Baliran population as having "the upper surface rectrices appearing as if covered with a fine gray powder." This is an unreliable characteristic as it depends entirely upon the freshness of the skins. The supposed difference is not substantiated in the series in the American Museum.

More accurate collecting and study are necessary to settle the problem of the geographical races of this species in the Philippines.

Ducula poliocephala poliocephala — Trinomials are used as *D. forsteni* from Celebes is evidently conspecific, differing only in the white, instead of pale vinous pink color of the throat and belly.

Gallicolumba luzonica — All forms of Bleeding-heart Pigeons are geographical representatives and plainly subspecies of *luzonica*, very strongly marked as many of them are. *G. rufigula*, from New Guinea and the neighboring islands, is a very closely allied species.

Parrots (Family Psittacidae). [J. D.]

Loriculus salvadorii Hachisuka, Mindanao, appears to be but unusually large and bright specimens of *L. philippensis apicalis*.

Cuckoos (Family Cuculidae). [J. D.]

Peters has already considered *Hierococcyx* a synonym of *Cuculus* (Check-List of the Birds of the World, IV, p. 14) and the Palawan Malcoha, *harringtoni*, a subspecies of *curvirostris*. We place this last species in the genus *Phaenicophaeus*, as we are unable to admit the genera: *Ceuthmochares, Rhopodytes, Taccocua, Rhinortha, Zanclostomus* and *Ramphococcyx*. We also place in the genus *Phoenicophaeus* the two Philippine species *superciliosus* and *cummingi*, considering the genera *Dasylophus* and *Lepidogrammus* as equally unacceptable. There are considerable differences in colors, in the greater and lesser denudation of the face, in the shape of the bill, and particularly of the nostrils which appear extremely variable in obviously closely allied forms. But in general characters and habits the various Malcohas are so closely related that it seems more logical to consider them all as species of a single genus (*Phoenicophaeus*—1815).

As I have pointed out before (*L'Oiseau*, 1940, p. 129, *Penthoceryx* is clearly a synonym of *Cacomantis*. The very slightly thicker bill and shorter tail do not constitute plausible generic characters, and the unique species *sonnerati* is better placed in the genus *Cacomantis*.

We have not been able to ascertain the validity of several subspecies of various cuckoos proposed by Hachisuka, mostly from Polillo, but it seems probable that they are not acceptable.

Owls (Family Strigidae). [E. M.]

Scops megalotis Gray (1844, Cat. Acciptr. Brit. Mus., p. 45, Manila). It is very desirable that the type specimen and unique ex-

ample of the "species" be reexamined in the British Museum. There is little doubt that the name must refer to one of the Philippine owls. However, it is highly unlikely that it refers to the mountain form *whiteheadi*, as maintained by Hachisuka (1934, Birds of the Philippine Islands, vol. 2, p. 53). The range of *whiteheadi* was inaccessible at the time (prior to 1840) at which *megalotis* was collected.

Pseudoptynx gurneyi Tweeddale — This species differs in a number of characters from the *Pseudoptynx-Ketupa-Bubo* group. However, judging from illustrations and descriptions, we cannot see any justification for the recognition of a monotypic genus *Mimizuku* as proposed by Hachisuka (1934, Birds of the Philippine Islands, vol. 2, p. 50). The species *gurneyi* seems to agree structurally with *Otus* in every detail except for being larger than any other form of that genus. The wing is 236, the tail 122, as against wing 195-203, tail 99-102, in females of *Otus bakkamoena whiteheadi*. This slight increase in size cannot be considered a valid generic criterion.

Bubo—Meise (1933, Ornit. Monatsber., vol. 41, pp. 169-173) has shown that structurally *"Pseudoptynx" philippensis* is closer to the eagle owls than to the fish owls. In its color pattern it is closest to *ketupu*, a typical fish owl. Tropical species in this group usually have their tarsi and toes less feathered than their temperate zone relatives; this is true even for the mammal- and bird-eating species. As Meise says correctly, there is such a complete intergradation between the most typical eagle owl (*bubo*) and the most typical fish owl (*ketupu*) that it can hardly be justified to separate them generically, even less to recognize the genus *Pseudoptynx* as one of the intermediate steps.

Ninox philippensis—The resident boobook owls of the Philippines are listed by McGregor as seven species and by Peters (1940, Check-List of the Birds of the World, vol. IV, pp. 142-143) as three species. Several authors have commented on the curious fact that all these species represent each other geographically—that is, that only one form of *Ninox* is found on any one of the islands. Still, no attempt was made to draw the obvious conclusion and consider all Philippine boobook owls as subspecies of a single species. The reason for this reluctance is the striking difference between some of the island forms, particularly the extremes, *philippensis* (Luzon) and *mindorensis* (Mindoro). However, these two forms are only the end links of a chain of intergrading forms, with *spilocephala* (Mindanao) serving as the principal connecting link. It is for this reason that we do not hesitate to consider all the Philippine forms as conspecific. Actually the differences between the subspecies of *philippensis* are smaller than between those of *jacquinoti* (Solomon Islands) which Peters (op. cit., p. 145) correctly lists as subspecies.

It seems that *Ninox philippensis* belongs to the superspecies *N. novaeseelandiae*, together with *scutulata, perversa, theomacha, meeki-solomonis-odiosa-jacquinoti* and other species.

The geographical races of *N. philippensis* can be arranged in three groups.

A. *Upperparts plain, underparts boldly striped.*

Ninox philippensis philippensis Bonaparte (type locality hereby restricted to Luzon).

Upperparts uniform pale cinnamon brown, with a distinct rufous wash. Well defined light bars on tail. Underparts white, striped with rufous cinnamon. Stripes not well defined, entire breast sometimes washed with tawny rufous. Size small. Wing, 158, 161.5, 162, 166.5, 168.5, 169. Tail long, 75, 76, 78, 81, 83, 83. Tail index (tail length in per cent. of wing length), 46.9, 47.4, 47.9, 48.2, 49.2, 49.8. Found on Luzon (? also northern Luzon), possibly also Marinduque, Samar and Leyte (no material seen).

Ninox philippensis proxima Mayr, new subspecies.

Type—No. 314872, United States National Museum, ♀ ad., Masbate, Philippine Islands, November 14, 1892, Worcester and Bourns (Menage Expedition).

Similar to *philippensis* but larger and with a relatively shorter tail. Upperparts darker brown, light bars on tail less conspicuous, light spots and bars on upper wing-coverts and outer edge of wing feathers reduced. Stripes of underparts coarser and darker brown. Wing, 175, 175; tail, 79, 82; tail index, 45.2, 46.8. Known from Ticao and Masbate.

Ninox philippensis centralis Mayr, new subspecies.

Type—No. 314873, United States National Museum, ♂ ad., Siquijor, Philippine Islands, February 28, 1891, Worcester and Bourns (Menage Expedition).

Much larger than *proxima* and with a long tail. Dark earth brown above without a rufous or tawny tint. Light spotting and barring on scapulars and upper wing-coverts much reduced. Stripes of underparts ill defined, white feather margins partly washed with ochraceous.

Four specimens from Siquijor measure as follows: Wing, 181, 185, 187, 191; tail, 89, 90, 92, 93; tail index, 47.1, 49.1, 49.2, 50.3.

This strikingly distinct form was mentioned by Grant as early as 1896 (*Ibis*, p. 531), but he failed to name it. I have not seen any specimens from Panay, Guimaras and Negros, but according to Grant (l. c.) they agree with Siquijor specimens.

B. *Head and neck spotted or barred, underparts striped or variegated.*

To this group belong the three forms *spilocephala* (Mindanao, Basilan), *reyi,* (Sulu, Tawitawi, Bongao) and *everetti* (Siassi). I have not seen specimens of either of the two Sulu Islands races, but I have examined nine specimens of *spilocephala* from the Zamboanga district of western Mindanao, and eight specimens from Basilan. Both series are unusually variable in all color characteristics, proportions and size.

Wing, Mindanao, 166, 170, 174, 175.5, 177; Basilan, 167, 167, 168, 173, 174, 181, 184, 190. Tail index, Mindanao, 42.2, 43.3, 43.5, 43.6, 45.7; Basilan, 42.0, 42.2, 43.1, 43.7, 44.6, 45.6, 46.3, 47.0.

C. *Head and neck spotted or barred; underparts entirely vermiculated or barred.*

Ninox philipensis mindorensis Ogilvie-Grant.

Characterized mainly by its small size and the great regularity of the fine vermiculation of the underparts extending to the flanks and the tarsal feathering. Barring of upperparts not confined to the crown, but extending more or less far onto the back. Scapulars usually with a few large white spots. Size small, but tail very long.

Wing, ♂ 164, 166, 172, 172, 173, ♀ 157, 160, 165, 170, 171. Tail index, ♂ 47.1, 48.2, 49.7, 50.0, 51.7, ♀ 50.0, 52.0, 52.1, 52.2, 55.2.

Olgivie-Grant was fully justified to separate this small race from *spilonota.* It is needless to point out that true *spilonota* has never been collected on Mindoro. The type of *plateni* (Rothschild Collection) is a typical specimen of *mindorensis.*

Ninox philippensis spilonota Bourns and Worcester.

Without the type and with otherwise insufficient material I am unable to give a full diagnosis of this race. It is undoubtedly larger than *mindorensis,* more coarsely barred, with the barring extending less far down on the flanks and on the back, and with less white on the scapulars and upper wing-coverts.

Two females from Tablas and Sibuyan measure: Wing 188, 194, tail 96, 101, tail index 51.0, 52.1. No specimens from the type-locality (Cebu) were examined by me.

Swifts (Family Apodidae). [E. M.]

Collocalia esculenta—Peters (1939, *Bull. Mus. Comp. Zool.,* vol. 86, p. 96) has recently reviewed the complicated taxonomic history of this species in the Philippine Islands. There are two kinds of Glossy Swiftlets in these islands; some with the rump glossy blue black as the back, others with the feathers of rump narrowly or broadly edged with white. Peters, Oberholser and Hachisuka regard these two kinds of birds as separate species. Stresemann, on the other hand, considers them as individual variants. A study of a fairly large series of Philippine birds leads me to the conclusion that neither view is entirely correct. Actually the presence or absence of the white edges of the rump feathers is subject both to geographical and individual variation. On the other hand, there is no evidence whatever that two separate species are involved. Why the partly white rump feathers should have been considered a specific character by some authors is not clear. The same character turns up independently in several other subspecies of the species *esculenta,* as an individual variation in *stresemanni* (Bismarck Archipelago) and as a subspecific character in *desiderata* (Rennell Island). Finally in *Collocalia esculenta uropygialis* (southern Melanesia) the rump is completely white. There is no reason why *marginata,* in which there is no more white on the rump than in *desiderata* should be considered a separate species.

Although this species is by no means uncommon, it is unfortunately only poorly represented in collections from the Philippines. This makes a final revision impossible at the present time. The following subspecies can be distinguished in the available material.

Collocalia esculenta isonota Oberholser. Upperparts uniform, feathers of rump uniform or with very narrow or inconspicuous white edges. Back dull and somewhat greenish, clearly contrasting with the darker crown. Abdomen extensively white, feathers of throat and breast with pronounced white edges. Large (wing 102-108) with a well forked (3-4) but short (tail index 36.0-38.8) tail. Restricted to the highlands of northern Luzon.

A single specimen from Mindoro is quite similar but smaller (wing 101, tail index 37.6). Mindanao birds, which average somewhat smaller, have variously either been called *isonota* or been separated subspecifically (*bagobo* Hachisuka, *mindanensis* Hachisuka). More material is required to determine the subspecific status of birds from that island. A single female from Capunuypugan, Mindanao, is more glossy on the back, has the rump feathers distinctly edged with white, and is rather small (wing 100.5, tail index 39.8, tail furcation 4). Two specimens from Bongao, Sulu Islands, have a dark rump and agree on the whole well with *isonota* but are smaller (wing 98, 101), but with noticeably longer tail (index 40.6, 41.3). It may be advisable to unite under the name *bagobo* Hachisuka (1930, Contrib. Birds of Philippines, no. 2, p. 173) the populations from the southern Philippines (Mindanao, Sulu Islands) which are similar to *isonota* in having no or little white on the rump, but differ by more glossy backs, shorter wings and relatively longer tails.

The characters listed in the original description of *bagobo* are those of freshly collected birds as compared to faded museum specimens.

Three specimens from Palawan do not seem to belong to any other recognized races. They are small (wing 95.5, 96, 99) but have very long tails (tail index 41.4, 42.4, 42.7). The back is dark and the rump is either plain as the back (one specimen) or narrowly margined with white (two specimens). This is apparently an undescribed race but additional material is needed before it can be named.

Collocalia esculenta marginata Salvadori. General coloration very much as in *isonota* but feathers of rump with white margins. The expression of these margins is quite variable, as illustrated by every series of this race.

The populations that are generally recorded as *marginata* actually belong to two different races. Typical *marginata* is found from the lowlands of central Luzon through the central islands south to Cebu (type locality) and Bohol. This includes records from Banton, Tablas, Sibuyan and Masbate. Size small (wing 95-103), tail furcation slight (2-2.5), tail variable (37.6-41.0). The back is rather glossy and not contrasting strikingly with the crown. The white area on the abdomen is less extensive than in most specimens of *isonota*.

A series from the islands north of Luzon (Babuyan, Calayan, Camiguin N.) is larger, paler and more greenish on the back. It may be described as:

Collocalia esculenta septentrionalis Mayr, new subspecies.

Type No. 19958, Chicago Museum of Natural History; Calayan, Philippine Islands; Nov. 2, 1903, McGregor and Celestino collectors.

Wing, 105, 106; tail, 41-43; furcation, 2.5, 3.5; tail index, 38.7, 40.4. Five specimens examined.

Collocalia—The dull colored cave swiftlets of the Philippines, excluding the two well defined glossy species, *esculenta* and *troglodytes*, continue to be exceedingly confusing. Peters (1940, Check-List of the Birds of the World, vol. IV, pp. 221-227) lists only three species for the Philippines, *whiteheadi*, *"inexpectata" amelis* and *"vestita" mearnsi*. In a small series of twenty-five Philippine birds before me no less than five species are represented, but I am unable to identify them as to species. Possibly one or two of them are entirely new. Collectors do not seem to realize the potentialities in this genus. As recently as 1938 I examined a new and still undescribed species from the well explored island of Java (Bartels collection). Much of the material I have seen in recent years consists of one or two specimens from each locality, often immature or moulting. It is needless to emphasize that with such scanty material no revision of the exceedingly difficult genus *Collocalia* can be undertaken. The taxonomy of the *Collocalia* of the Malay Archipelago cannot be clarified until collectors gather large series at many localities, such as was done by A. Rand and W. Coultas in the Papuan region.

Tree Swifts (Family Hemiprocnidae). [E. M.]

Hemiprocne comata—Freshly molted specimens of this species have a strong greenish gloss on back and underparts. These parts appear dull bronze brown in worn or faded specimens. I have seen green and bronze brown specimens in the described plumage condition from all parts of the range of this species. It is therefore obvious that the subspecies *nakamurai* Hachisuka (Mindanao) and *barbarae* Peters (Mindoro), both based on fresh specimens with a greenish gloss, cannot be maintained. Mindanao specimens seem to have slightly more white on the lower abdomen than the average of *comata* but the difference is not sufficiently clearcut to justify subspecific separation. Specimens from North Pagi differ in nothing from other specimens of *comata*, and *stresemanni* Neumann can not therefore be recognized either. Ripley (1944, *Bull. Mus. Comp. Zool.*, vol. 94, p. 355) had already come to this conclusion (51 specimens examined).

Kingfishers (Family Alcedinidae). [E. M.]

Halcyon lindsayi and *H. hombroni*—These two species form a superspecies, together with the Malayan *H. concreta*. In fact, this superspecies has a number of additional geographical representatives, which were listed by recent authors in a different section of the family. Their habits, voice, color pattern and characteristic sexual dimorphism, however, reveal the close relationship of all these forms. These species are *"Monachalcyon" monachus* (Celebes) and *"Melidora" macrorhina* (New Guinea). Other relatives of this very primitive group of kingfishers seem to be *Halcyon princeps* (Celebes), *Syma torotoro* (New Guinea) and *Halcyon bougainvillei* (Solomon Islands).

Halcyon winchelli—A comparison of the type of *Halcyon winchelli nigrorum* Hachisuka (1934, Birds of Philippine Islands, vol. 2, p. 142) with other specimens of this species reveals no valid differences.

Halcyon coromanda—Oberholser, in his revision of this species (1915, *Proc. U. S. Nat. Mus.*, vol. 48, p. 639), seems to have overlooked the fact that the East Asiatic-Japanese race *major* occurs as winter visitor far south of its breeding range, for example as far as Celebes. Most of the Philippine birds examined by us also seem to belong to *major*. On the Sulu Islands and on Palawan birds have been collected which undoubtedly

belong to the richly colored Malaysian race *minor*. As far as the rest of the Philippines is concerned, it is still uncertain whether *Halcyon coromanda* occurs there as a breeding bird and if so, whether it differs from *major* and whether the type of *ochrothorectis* is a winter visitor or a local resident.

Halcyon pileata—There is no evidence that in the Philippines this bird is anything but a winter visitor. *Halcyon pileata palawanensis* Hachisuka (1934, Birds of Philippine Islands, p. 142) is clearly a synonym.

Pelagopsis capensis—There is still considerable confusion in the literature concerning the races of this species in the Philippines. We agree with Manuel (1941, *Phil. Jour. Sci.*, vol. 74, p. 379) that Luzon is to be eliminated from the range of *gouldi*. As far as the other islands are concerned, we find that specimens from the Sulu Islands (type locality of *gigantea*) are distinctly paler buff than those from the rest of the Philippines. The name *smithi* is available for this population which is intermediate between *gouldi* and *gigantea*. It includes the birds from the eastern Philippines (Luzon to Mindanao and Basilan) and from the Visayan group.

Ceyx lepidus margarethae—The tremendous variability of this species is well known. Like Bourns and Worcester (see McGregor, op. cit., p. 316) "we have a practically unbroken series between a bird with a magnificent deep blue upper surface and a bird with fine silvery white upper surface *which has not a blue feather on it.*" Such bluish-white birds have been described as *suluensis* (May 15, 1890), *salamaui* (July, 1890), and *goodfellowi* (1905). Lately Manuel (1941, *Phil. Journ. Sci.*, vol. 74, p. 367) has added another synonym to this unfortunate series. He described a specimen from Tawitawi (Sulu Islands) as *virgicapitus*. This would be a straight synonym of *suluensis* if the whitish-blue birds did belong to a different species from the dark purplish-ultramarine individuals. But, as stated above, there is no doubt that they are all members of a single population of which *margarethae* is the oldest name.

Hornbills (Family Bucerotidae). [J. D.]

We consider *"Hydrocorax"* a synonym of *Buceros*. *"Limnophalus" montani* and *"Gymnolaemus" marchei* undoubtedly belong to the genus *Anthrococeros* as they do not differ from each other and from *malayanus* and *coronatus* more than the latter two between themselves. The naked chin of *marchei* and the black bill of *montani* do not constitute generic characters.

Barbets (Family Capitonidae). [J. D.]

As shown by Ripley (MS) no real generic distinctions can be recognized between the numerous species of oriental Barbets so far usually assigned to the genera *Megalaema, Chotorrhea, Thereiceryx, Cyanops, Mesobucco* and *Xantholaema*. All species must be placed in the oldest genus *Megalaema*.

Woodpeckers (Family Picidae). [J. D.]

We cannot recognize the genus *Lichtensteinipicus* as different from *Mulleripicus*, as its only difference is a smaller size. We consider the two forms *funebris* (1826) and *fuliginosus* (1877) as conspecific. *Thriponax* is a synonym of *Dryocopus*.

Broadbills (Family Eurylaimidae). [J. D.]

We cannot see that the Philippine species *steerei* should be separated generically from the two Malaysian species *ochromalus* and *javanicus* which it resembles closely in general shape, pattern and coloration. We do not consider the presence of a fleshy eye wattle, the only distinctive character of *steerei*, as of sufficient importance to justify the recognition of the genus *Sarcophanops*. Although differing clearly in size and color, the two Philippine forms *steerei* and *samarensis* are in our opinion subspecies of one species: *Eurylaimus steerei*.

Swallows (Family Hirundinidae). [E. M.]

Riparia paludicola—Riley recently described a race *Riparia chinensis tantilla* (1935, *Proc. Biol. Soc. Washington*, vol. 48, p. 147) based on four specimens from Luzon, as "darker above, especially on the pileum and rump." A comparison of the type series with a series from Burma and India reveals no difference in the color of the pileum, but shows that the rump of the four Luzon birds is darker than in Burma birds. However, the Luzon specimens can be matched quite well (allowing for wear) by a single bird from Formosa, as well as by most of the Indian specimens. The type locality of *chinensis* seems never to have been fixed accurately, since it presents a definite problem. Contrary to the assertions of earlier authors, the species seems to be absent from China almost entirely, having been recorded only from Formosa and parts of Yunnan. In view of the slightness of the differences in the rump color of the different populations, the irregularity of distributional pattern and the uncertainty of the type locality of *chinensis*, it cannot be justified to recognize *tantilla* for the Luzon birds.

Cuckoo-shrikes (Family Campephagidae). [E. M.]

Edolisoma macgregori Mearns — Hachisuka (1935, Birds of the Philippines, vol. 2, p. 356) has already pointed out that there is no justification for recognizing the genus *Malindangia* and that *macgregori* is closest to *E. panayensis*. However, the two species are certainly different enough not to be considered conspecific. The plumage of *mac-*

gregori is much softer than that of *panayensis* and the tail feathers are strikingly pointed (a feature elsewhere found only among immature Campephagidae). Sexual dimorphism is much less pronounced in *macgregori* since the females have a black throat as the males, not a gray one as the females of *panayensis*. The central tail-feathers are black in males and females of *panayensis*, and in the females of *macgregori;* they are gray in *macgregori* males. In addition there is an ecological difference between the species. *E. panayensis* is found in the lowland and hill forest, while *macgregori* has been found only in the mountain forest of Mt. Malindang (western Mindanao) at an altitude of 5,750 feet.

Pipits and Wagtails (Family Motacillidae). [J. D.]

The genus *Dendronanthus* (*indicus*) is rejected and considered a synonym of *Motacilla*. The species *indica* does not differ in any important way (proportions, pattern or habits) from the other wagtails. The fact that the middle pair of rectrices in this species is slightly shorter than the others does not constitute a valid generic criterion.

Bulbuls (Family Pycnonotidae). [J. D.]

Our classification and nomenclature of the bulbuls are those of "A revision of the genera and species of the family Pycnonotidae" by Delacour, *Zoologica*, XXVIII, 4, 1943, pp. 17-28, with one exception. The specific name *Microscelis everetti* Tweeddale, 1877, must be changed to *M. rufigularis* Sharpe, 1877, this latter name antedating the former by a few months.

As pointed out in this revision, "*Iole*" *striaticeps* Sharpe, 1888, from Palawan is a straight synonym of *Microscelis charlottae palawanensis* (Tweeddale, 1877). Type in American Museum examined.

Thrushes (Subfamily Turdinae). [J. D.]

Rhyacornis bicolor—The Philippine Water Redstart *bicolor* is certainly congeneric with the Asiatic species *fuliginosa*, which it links to *leucocephala*. All three are better placed in the genus *Rhyacornis*.

The genus *Kittacincla* has been defined as differing from *Copsychus* in its longer, broader and more graduated tail. This character does not apply to the Philippines species, and we consider *Kittacincla* a synonym of *Copsychus*, the slightly more slender bill being only of specific significance. As a result of synonymizing *Kittacincla* with *Copsychus*, a new name must be given to the north Bornean form of *Copsychus saularis* called *C. niger* by Wardlaw Ramsay (*P. Z. S.*, 1886, p. 123) as it becomes preoccupied by *Copsychus niger* (*Kittacincla nigra* Sharpe, *Trans. Linn. Soc.*, 1877, 1, p. 355) from Palawan. I propose for it the name *Copsychus saularis ater*.

Geokichla mindanensis Mearns—We have examined the type and unique specimen of this species and found it to be *Zoothera andromedae*.

Oreocincla is a synonym of *Zoothera*.

Babblers (Subfamily Timaliinae). [J. D.]

Malacocincla—The genera *Leonardina* and *Anuropsis* are not sufficiently characterized to be retained. Therefore, the species *woodi* (Mindanao) and *cinereifrons* (Palawan) are placed in the large genus *Malacocincla* which also includes the African birds known as *Illadopsis* and the Malaysian "*Aethostoma.*" *M. cinereifrons* is extremely similar to *M. pyrrhogenys*, from Malaysia, only differing in its much shorter tail. The bird listed by McGregor as *Turdinus rufifrons* is in reality a well marked subspecies of the Bornean *Malacopteron magnum: M. m. palawanense*, much browner and without a black occipital patch.

Stachyris—The genus *Zosterornis* is inseparable from *Stachyris*, having the same general proportions, color pattern, identical bill and nostrils. Ogilvie-Grant, its describer, writes: "The genus is most nearly allied to *Cyanoderma*, but there is no naked space around the eyes, which, on the contrary, are encircled by a ring of short white feathers perfectly similar to that of a true *Zosterops*." The ring of feathers around the eyes is present in only two of the species referred to "*Zosterornis*": *striata* and *whiteheadi*, while it exists also in *Stachyris nigriceps*. As "*Cyanoderma*" (which we do not recognize either) is alleged to differ from *Stachyris* only in the naked space around the eyes, as characterized by its describer himself, it follows that "*Zosterornis*" differs in no way from *Stachyris*.

The group of forms *capitalis-nigrocapitata-affinis-dennistouni* presents an interesting problem. They all replace one another geographically, as *capitalis* and *nigrocapitata* do not overlap in Leyte; *capitalis* inhabits the southern part of that island, Mindanao, Dinagat, Panaon and Basilan, while *nigrocapitata* occurs apparently only in the north and extends to Samar and Bohol. A very similar form found in the southern half of Luzon, *affinis*, is evidently but a subspecies of *capitalis*. The much yellower *dennistouni* is only found in north Luzon. On account of the rather considerable differences in colors, we prefer to consider *capitalis*, *nigrocapitata* and *dennistouni* as three species forming a superspecies.

S. plateni (Mindanao) and *S. pygmaea* (Leyte and Samar) are conspecific, the latter being much grayer and less distinctly marked but quite similar in proportions, pattern and size. The species *speciosa* from Negros and Panay, also belongs to the genus *Stachyris*, its peculiar throat and head ornamentation having no generic signficance. It otherwise

resembles *S. dennistouni* very closely. *"Dasycrotapha"* therefore is considered a synonym of *Stachyris*.

A careful examination of the two species of *"Mixornis"* (*flavicollis* and *gularis*)[2] and of the two *Macronus* (*striaticeps* and *ptilosus*) shows a complete similarity in the bill and nostrils as well as in general build and proportions. The bill is depressed near its base and thickened towards the end, contrary to that of *Stachyris*, and the nostrils are oval and open, lacking the protective membrane. In all four species the plumage is characteristically thick, long and fluffy; the feathers of the back are very long, with elongated and disintegrated barbs. In *flavicollis* and *gularis*, the rachis remains soft and inconspicuous. In *striaticeps*, it is slightly stiffened and visible, white in color as well as the base of the barbs, at different degrees according to subspecies. In *ptilosus*, a larger species, the rachis is still more conspicuous, longer, stiffer, and the barbs more disintegrated.

The generic name *Mindoria* Hachisuka (*Tori*, XIII, 38, p. 226, 1934, for *Macronus striaticeps*) cannot be recognized and since the differences between the four species are evidently restricted to color and pattern, and to degrees in the differentiation of the feathers of the back, we have decided to consider the genus *Mixornis* Blyth, 1842, a synonym of *Macronus* Jardin and Selby, 1835.

Flycatchers (Subfamily Muscicapinae). [E. M.]

Rhipidura superciliaris—Specimens from southeastern Mindanao (Davao Gulf district) are distinctly darker blue than a series from Basilan. The name *apo* is available for this subspecies (Hachisuka, 1930, Contrib. Birds of Philippines, no. 2, p. 184. Mt. Apo).

The genera *Muscicapa* and *Siphia*—Ever since Hartert lumped the majority of the true flycatchers in the genus *Muscicapa*, attempts have been made to subdivide this unwieldy group into natural divisions. Such attempts invariably ended in the recognition of numerous poorly defined genera, mostly monotypic or at best with two or three species. A complete series can be arranged between species with a very flat and depressed bill and such with a relatively slender and more compressed bill, between birds with very short tarsus and very weak feet and such with a longer tarsus and stronger feet, and so forth. The length of the first primary, the length of the rictal bristles, the habitat (treetops or undergrowth), in fact any character used in this group, shows an equally complete intergradation between the extremes. The only group within this large assemblage, which is relatively well defined, is the group of the typical gray flycatchers (*Muscicapa*+*Hemichelidon*+*Alseonax*). With their very broad bills and short legs, they are the extreme development of the flycatcher type. However, even these gray flycatchers intergrade imperceptibly with the less arboreal types. We have reluctantly come to the conclusion that Hartert's solution is the only logical one. It becomes necessary to combine with *Muscicapa* the following: *Cyornis*, *Muscicapula*, *Dendrobiastes*, *Xanthopygia*, *Cyanoptila*, *Siphia*, *Ficedula* and *Eumyias*. *Rhinomyias* is an undergrowth dweller derived from *Muscicapa*.

The genera *Hypothymis* and *Terpsiphone* belong to the *Monarcha* branch of Old World flycatchers which is far removed from the *Muscicapa* group. There is no justification in keeping *Xeocephus* and *Neoxeocephus* generically separated from *Terpsiphone*, merely because the central tail-feathers are not as much or not at all elongated. They agree with *Terpsiphone* in every other respect. *Terpsiphone cyanescens* indicates the close relationship between *Terpsiphone* and *Hypothymis* in the coloration of both male and female.

Hypothymis — The two species of this genus, which are endemic in the Philippines, and which live there side by side with the widespread *azurea*, are so distinct that they have been made the types of two monotypic genera, *Camiguinia* McGregor for *helenae* and *Cyanomyias* Sharpe for *coelestis*. *Cyanomyias coelestis*, with its light cobalt blue long crest, is a bird of striking beauty and distinction. However, it agrees with *Hypothymis azurea* in every detail of structure, except for the crest. Furthermore, the gap between *azurea* and *coelestis* is bridged completely by the short crested *H. helenae*. The differences between the blue monarchs are certainly not striking enough to justify the recognition of three monotypic genera for *coelestis*, *helenae* and the superspecies *azurea-puella*.

The population of *Hypothymis azurea* from the southern Philippines (Mindanao, Basilan) was recently described by Peters as *compilator* (1939, *Bull. Mus. Comp. Zool.*, vol. 86, p. 111). The chief character of the new form, a greater extent of the white area on the abdomen, is not substantiated in the material of the American Museum. We, therefore, prefer to include all Philippine birds under the name *azurea*. More material may show that females from the Sulu Islands have the back more blue gray, less brownish than females from the other islands.

Muscicapa hyperythra luzionensis — A male and a female from Mindoro fall well within the range of variation of a series from northern Luzon. We have been unable to find any characters which would justify

[2] See J. Delacour: Revision du genre *Mixornis*. *L'Oiseau*, 1936, pp. 1-27.

the recognition of *mindorensis* Hachisuka (1935, Birds of Philippine Islands, vol. 2, p. 299).

Cyornis banyumas mcgregori Manuel — This subspecies was described by Manuel on the basis of a single female from the hills of Cagayan Province, Luzon (1935, *Phil. Jour. Sci.*, vol. 56, pp. 93-94). The bird is carefully compared with *C. banyumas lemprieri* (Palawan) and a number of differences are noted. In at least some of these characters the specimen in question agrees quite well with the female of C. *herioti*, but no comparison with that species is made in the original description of *mcgregori*. This is the more to be regretted since there is some indication that *C. herioti* is nothing but a geographical representative on Luzon of *C. banyumas*, in spite of the blue breast of the male (Stresemann, 1925, Ornith. Monatsber., vol. 33, p. 48). It will be advisable not to accept *mcgregori* as a valid form nor the occurrence of *C. banyumas* on Luzon, until either typical *banyumas* males have been found on Luzon or differences between the females of *herioti* and *"mcgregori"* have been established beyond doubt.

Titmice (Family Paridae). [J. D.]

Both *"Pardiliparus"* and *"Penthornis"* are synonyms of *Parus*. The species *elegans* and *amabilis* are both very distinct, but no doubt related to *P. venustulus* from China and to *P. ater*. *P. tassacourbe* is certainly a close relative of the Japanese *P. varius*, as both have the same long bill and white forehead and face; the hidden white bases of the feathers of the hind neck in *tassacourbe* correspond to the white nuchal patch of *varius*. In young specimens, the white is even more extensive, and there is a conspicuous patch on the back and on the sides of the neck.

Flowerpeckers (Family Dicaeidae). [E. M.]

The generic classification of the Indo-Malayan flowerpeckers has been a matter of much dispute. In spite of the great uniformity of structural characters, some five or six mostly monotypic genera and subgenera were named for species that are slightly aberrant in one respect or another. Except for color pattern there are actually only two characters that vary appreciably: the shape of the bill and the length of the outermost ("first") primary.

The shape of the bill is, unfortunately, utterly unreliable. In every natural group of flowerpeckers there are some species with a long thin bill and some with a short thick bill. For example, *Dicaeum pygmaeum* has a long slender bill, its close relative *D. ignipectus* a thick bill. *Dicaeum nigrilore* (Mindanao) has a long bill, its geographical representative *"Acmonorhynchus" aureolimbatus* (Celebes) a short one. *Dicaeum retrocinctum* (Mindoro) has a very slender, well curved, honeyeater (*Myzomela*)-like bill, while that of its geographical representative *D. papuense* is a typical flowerpecker bill. *D. bicolor* seems to be closely related to the *papuense* group but has a short and extremely heavy bill. It would break up a natural group to remove this species to the genus *Anaimos*. *"Anaimos" agile aeruginosum* looks like a faded edition of *Dicaeum chrysorrhoeum*, except for its short, very heavy bill. We do not see how this group can be split generically, without dividing the genus *Dicaeum* into many unnatural groups. McGregor (1927, *Phil. Jour. Sci.*, vol. 32, pp. 519-525) recognized as genera and subgenera *Polisornis, Bournsia, Acmonorhynchus* and *Piprisoma*, but he came no closer to an arrangement of the flowerpeckers into natural groups than if he had put every species in a separate genus. Actually it seems much better to include the thick-billed species in the same genus with the nearly related thin-billed species from which they originated polyphyletically. The second strong morphological characteristic which might be utilized for a classification of the flowerpeckers is the length of the outermost ("first") primary. In most species it is too short to be distinguished on the underside of the wing; these are the species with nine primaries. On the other hand, there are a few species like *olivaceus, maculatus, percussus, xanthopygius* and *thoracicus*, which have a first primary of about half the length of the second. The persistence of the tenth primary is obviously a primitive character, which may have been lost repeatedly among the flowerpeckers. It is therefore possible that the species of *Dicaeum* with nine primaries are a polyphyletic group. On the other hand, it may be useful to unite all the primitive species with ten primaries in a separate genus for which *Anaimos* is the oldest available name. Most of these species have an orange or crimson patch on the crown (except *olivaceus*) and most have a white malar stripe. Both color characters occur also in the nine-primaried *Dicaeum;* the crown patch in *D. anthonyi* and the light malar stripe in *D. annae, agile* (part) and *chrysorrhoeum*. (The entirely red crown *in D. geelvinkium, cruentatum* and *trochileum* is obviously not related genetically to the small orange or red patch in the middle of the crown in *maculatus* or *percussus*).

Dicaeum pygmaeum—The Palawan population of this species has been separated by Hachisuka as *palawanorum* (1926, *Bull. Brit. Orn. Club*, vol. 47, p. 55). This form is not only larger than typical *pygmaeum*, as stated correctly in the original description, but also whiter below, particularly in the male plumage. Mindoro birds agree with such from Luzon.

Dicaeum papuense—Hachisuka separated Negros birds as *whiteheadi* from *haematostictum* of Panay (1926, *Bull. Brit. Orn. Club*, vol. 47, p. 55). The material of the American Museum indicates that the large size of the black pectoral spot in Whitehead's Negros skins is due to the make-up. Steere's Negros, Panay and Guimaras skins are indistinguishable in this respect. Neither are there any noticeable differences in the colors of the upper-parts. We consider *whiteheadi* a synonym of *haematostictum*.

Dicaeum flaviventer A. B. Meyer—This species, known only from the unique type from Cebu, is exactly like *papuense* according to the original description, except that the ventral stripe is yellow instead of scarlet-vermilion. It is highly probable that the type is a specimen of *papuense*, which had been preserved in alcohol and had lost its red pigment. It will be advisable to regard *flaviventer* henceforth as a doubtful synonym of *papuense*. In spite of much collecting on Cebu no second specimen of *flaviventer* has been found during more than fifty years.

Dicaeum hypoleucum — This variable species is restricted to the eastern Philippines, from Luzon to Mindanao and the Sulu Archipelago. The Luzon form, *obscurum*, is very dull colored, with the two sexes approximately alike. Remarkable is the light flesh brown color of legs and feet. Adjoining in the south, on the Samar-Leyte group, occurs the form *everetti*, which is similar to *obscurum* in general coloration but has the underparts whitish-gray; the legs are dark brown. *D. l. everetti* is exactly intermediate between *obscurum* and the Sulu-Mindanao race *hypoleucum* both in general color and shape of the bill.

Sharpe described *D. hypoleucum* in 1876 from Basilan and Tweeddale *D. mindanense* in 1877 from Zamboanga, western Mindanao, both on the basis of single specimens. The type of *mindanense*, although listed as male, is clearly a female from its description. In fact, there do not seem to be any clearcut differences between specimens from Basilan and Mindanao. It is possible that females from eastern Mindanao are clearer greenish-olive, less sooty than such from Basilan, but we lack females from Zamboanga to determine whether they are equally greenish.

D. h. obscurum is superficially similar to *D. concolor* from the Asiatic mainland, but differs on closer examination in so many characters as to eliminate any possibility of close relationship.

Dicaeum quadricolor — This handsome species is usually listed far from its nearest ally and geographical representative, *D. bicolor*. The two species have a bill of identical shape and the coloration of the underparts is also identical. If it were not for the fact that the male of *bicolor* (1894) has the back of a solid blue-black color, while it is scarlet and olive in *quadricolor* (1877), one would not hesitate to unite the two forms in a single species.

Anaimos johannae (Palawan)—This species combines the characters of two Bornean species. It has the yellow rump of *A. xanthopygius*, and the white malar stripe, well defined red throat spot and large crown patch of *A. percussus*. The female is more different from the females of either of the two Bornean species than they are from each other. Perhaps Palawan was originally settled by *percussus* from Borneo, which subsequently reinvaded Borneo in the form of *xanthopygius*. It seems best to treat *johannae* as a full species in view of its complete intermediacy between the two sympatric species *percussus* and *xanthopygius*.

Sunbirds (Family Nectariniidae). [J. D.]

Our classification and nomenclature are those of "A Revision of the Family Nectariniidae," Delacour, 1944, *Zoologica*, XXIX, 4, pp. 17-38, with the following exception:

Anthreptes griseigularis is now considered a subspecies of *A. malacensis*, as a study of records shows that *griseigularis* occupies northeastern Mindanao only and does not overlap with *chlorigaster* found in the western peninsula of that island.

Male specimens of *Nectarinia sperata* found in S. E. Mindanao, in the vicinity of Davao and Mt. Apo, differ from those occurring in the north of the island and northward (*sperata*) as well as those from its western peninsula and Basilan (*juliae*). They are somewhat intermediate. Their breast is vermilion tinged with yellow, instead of scarlet (*sperata*) or yellow slightly mottled with vermilion in the center (*juliae*). Each feather has a yellow band between the dark gray base and the vermilion tip. Females also differ in having the wings washed with reddish brown, while they are olive green in *sperata* and strongly tinged with chestnut in *juliae*.

I propose for this form the name:

Nectarinia sperata davaoensis Delacour, new subspecies.

Type — ♂, American Museum Natural History, no. 687286, W. Goodfellow, Martina (Davao), March, 1903.

Wing 50, tail 31, culmen 14, tarsus 9 mm., 4 males and one female examined from Martina and Davao, S. E. Mindanao.

As pointed out in the revision, *flagrans* is a species of *Aethopyga*, not of *Nectarinia* (*"Cinnyris"*).

Cinnyris picta Hachisuka, *Proc. Biol. Soc. Wash.*, 54, 5, 1941, founded on one old specimen from the Atong-atong plantation,

N. W. Basilan, is probably a hybrid between *sperata* and *jugularis* (see Zimmer and Mayr, 1943, *Auk*, 60, p. 259).

White-eyes (Family Zosteropidae). [E. M.]

Zosterops montana—The Rothschild Collection contains three white-eyes from Mt. Canloan, Negros, identified as *Z. siquijorensis*. After examining these specimens Stresemann classified *siquijorensis* as a race of *chlorates* (=*montana*) (1931, *Mitt. Zool. Mus. Berlin*, vol. 17, p. 216). McGregor (1909, Manual Philippine Birds, pp. 614, 617) and other authors, however, have stressed the close relationship of *siquijorensis* with the other Philippine members of *Z. palpebrosa*. A study of the white-eyes in the American Museum together with the material of the U. S. National Museum reveals that the three Negros birds belong to an undescribed race of *Z. montana*, while true *siquijorensis* is indeed a subspecies of *palpebrosa*.

Zosterops montana pectoralis Mayr, new subspecies.

Type—No. 700150, Amer. Mus. Nat. Hist., Rothschild Collection, ♂ ad., Canloan, Volcano, Negros, Philippine Islands, April 15, 1896, J. Whitehead.

Differs from *whiteheadi* (Luzon) and *vulcani* (Mindanao) by having the yellow of the throat extending over the entire breast. Entire abdomen, particularly along the midline, slightly washed with yellow. White eye-ring broad, interrupted in front by a black spot and with a narrow blackish border toward the cheeks. Upperparts slightly more yellowish than *whiteheadi*. Wing, ♂ 57, 60, ♀ 59. Tail, ♂ 40, 42, ♀ 42. Culmen, ♂ 15.5, 16.5, ♀ 15.5

Range—Known only from the Canloan Volcano (at 6,000 feet), Negros Island. This is by far the most distinct race of *montana* in the Philippines. It differs from *palpebrosa siquijorensis* which seems to occur in the lowlands of Negros by not having the flanks a clear gray, the broader eye-ring, the gray (not brown) iris and the more blackish wings and tail. The species *montana* (formerly *chlorates*) seems to have a much wider distribution than the earlier reviser thought. It seems to me, for example, that *Zosterops novaguineae* might also be included with this species.

Zosterops nigrorum—There has been considerable uncertainty about the respective ranges of the two Luzon races, *luzonica* and *aureiloris*. *Z. luzonica* was reported by Ogilvie-Grant from the type-locality (Mayon Volcano, Albay Province, south Luzon) as well as from Cape Engano, the northernmost tip of Luzon. *Z. aureiloris* from Abra Province, northwestern Luzon (type locality) and from Mindoro.

Material before me (including topotypical specimens from all the mentioned localities) shows that immatures and worn birds are considerably duller than adults in fresh plumage. The Cape Engano bird (imm.) belongs undoubtedly to *aureiloris*. Specimens from Bataan Peninsula and from the Laguna Province also belong to this race. They are characterized by the width of the yellow band on the forehead and to a lesser extent by the reduction of citrine (in favor of yellow) on the sides of the breast and on the flanks. Two paratypes of *luzonica* before me are immature, but two adults from Sorsogon, south Luzon (Philadelphia Academy of Natural Sciences) shows the characters of this race quite well. They are similar to *nigrorum* (Negros) but more citrine, less greenish above, with the black line below the eye ring very inconspicuous, and with the yellow of the underparts deeper.

Weavers (Family Ploceidae). [J. D.]

Our classification and nomenclature are those of "A Revision of the Subfamily Estrildinae," Delacour, *Zoologica*, 28, 11, 1943, pp. 69-86.

Starlings (Family Sturnidae). [E. M.]

Aplonis minor todayensis Mearns—This curious small starling is known only from two females. One was collected by Mearns on July 11, 1904, at Todaya, 4,000 feet, on the slope of Mt. Apo, Mindanao. A second specimen was obtained by Goodfellow two years later at exactly the same locality. The species is reported to be quite common there.

In the forty years since the discovery of this bird, a number of authors have speculated whether it was a good species or a race of *panayensis*. The bird is indeed very similar to *panayensis*, differing only by the more purplish throat and the smaller dimensions (see also *Ibis*, 1906, p. 469). Opposed to the assumption that *todayensis* is a race of *panayensis* is the fact that *panayensis* occurs throughout the Philippines, including the lowlands of Mindanao, without any noticeable geographical variation. Even on Celebes and other neighboring islands *panayensis* is replaced by subspecies that are extremely similar to the nominate race.

It finally occurred to me to compare *todayensis* with *Aplonis minor montosus* from Celebes, and I found indeed a surprising similarity in coloration, size and proportions. *A. m. montosus* differs from *minor* by the reduction of the purple color, particularly on the neck. This is carried even farther in *todayensis* which is all green on the upperparts and has less purple also on the throat. The feathers of head, neck, ear region and throat are more lanceolate in *todayensis* than in *montosus*. However, a series of adult males needs to be examined

before the constancy of this character is assured.

The measurments are as follows (females only): Wing: *todayensis*, 96, *montosus*, 98, 98, *panayensis*, 100, 101.5, 104, 105, 105.5. Tail: *todayensis*, 57, *montosus*, 54.5, 57.5, *panayensis*, 65, 66, 68, 70. Tail index: *todayensis*, 58.3, *montosus*, 55.7, 58.7, *panayensis*, 63.6, 64.3, 65.0, 66.6. Tarsus: *todayensis*, 19, *montosus*, 19.5, 19.5, *panayensis*, 22, 22, 22. Culmen: *todayensis*, 18.5, *montosus*, 18.5, 18.5, *panayensis*, 22.5, 23.5, 24, 24.

Even though the hackles in the plumage in *todayensis* are somewhat better developed than in *minor* and *montosus*, it will have to be considered a race of *minor* in view of the almost identical proportions unless the still unknown adult males reveal characters opposed to this classification.

Orioles (Family Oriolidae). [E. M.]

Oriolus chinensis yamamurae Kuroda — This race supposedly restricted to Basilan, was described (*Tori*, vol. V, No. 23, p. 257) as differing from *chinensis* mainly by smaller size. The measurements of specimens in the American Museum do not confirm these differences: Wing: Basilan, ♂ 154, 155, 155, 155, ♀ 147, 150, 150. Mindanao; ♂ 152, 154, 154, 155, 155, 156, 157, 160, ♀ 148, 148, 150. There is perhaps a slight mean difference in size, but not enough to justify subspecific separation. Luzon birds average still slightly larger than Mindanao birds (wing up to 164), but there is still considerable overlap. Neither does the width of the yellow tip on the central tail-feathers vary sufficiently between northern and southern Philippines to permit the separation of races.